SEQUENCE LISTING

5

<110> Conner, Timothy W.
    Dubois, Patrice
    Malven, Marianne
    Masucci, James D.

10

<120> PLANT REGULATORY SEQUENCES FOR SELECTIVE CONTROL
    OF GENE EXPRESSION

15   <130> 38-21(15678)B promoters

    <140> n/a
    <141> 2001-05-01

20   <150> US 60/201,255
    <151> 2000-05-01

    <160> 98

25   <170> PatentIn Ver. 2.1

    <210> 1
    <211> 22
    <212> DNA
30   <213> Artificial Sequence

    <220>
    <223> Description of Artificial Sequence: adaptor
      sequence
35

    <400> 1
    gtaatacgac tcactatagg gc   22

40   <210> 2
    <211> 19
    <212> DNA
    <213> Artificial Sequence

45   <220>

<223> Description of Artificial Sequence: adaptor
    sequence

<400> 2
5   actatagggc acgcgtggt   19

<210> 3
<211> 30
10   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: adaptor
15   sequence

<400> 3
agggcaagct tggtcgacgg cccgggctgg   30

20
<210> 4
<211> 17
<212> DNA
<213> Artificial Sequence

25
<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

30   <400> 4
ctgacggagg cgctacg   17

<210> 5
35   <211> 17
<212> DNA
<213> Artificial Sequence

<220>
40   <223> Description of Artificial Sequence: fully
    synthesized primer

<400> 5
gttgaagtcg atgcagc   17
45

<210> 6
<211> 17
<212> DNA
<213> Artificial Sequence

5

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

10   <400> 6
cgtcgggtat agattta   17

<210> 7
15   <211> 17
<212> DNA
<213> Artificial Sequence

<220>
20   <223> Description of Artificial Sequence: fully
    synthesized primer

<400> 7
ccatgactca cttcctg   17

25

<210> 8
<211> 17
<212> DNA
30   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

35

<400> 8
cgaatctgct acggatc   17

40   <210> 9
<211> 17
<212> DNA
<213> Artificial Sequence

45   <220>
<223> Description of Artificial Sequence: fully

synthesized primer

<400> 9
acacggtatc tctgagc   17

<210> 10
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 10
cacacgtaat cgtaatg   17

<210> 11
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 11
ccatgcacca gctgcag   17

<210> 12
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 12
cgaatctgct acggatc   17

<210> 13

<211> 17
<212> DNA
<213> Artificial Sequence

5   <220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 13
10   atgcgcagac gttgagg   17

<210> 14
<211> 24
15   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
20   synthesized primer

<400> 14
ggaccccagc gtccgtagcg cctc   24

25

<210> 15
<211> 33
<212> DNA
<213> Artificial Sequence

30

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

35   <400> 15
ggatcccagc tccgacagcg agatcttacc gtc   33

<210> 16
40   <211> 35
<212> DNA
<213> Artificial Sequence

<220>
45   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 16
ggatccagat ctgtccgccg tctccgacat tagcg   35

5

<210> 17
<211> 35
<212> DNA
<213> Artificial Sequence

10

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

15   <400> 17
     ggatccagat ctagcgaatc tgctacggat caata   35

<210> 18
20   <211> 17
     <212> DNA
     <213> Artificial Sequence

<220>
25   <223> Description of Artificial Sequence: fully
           synthesized primer

<400> 18
ggacatcacc atccagc   17

30

<210> 19
<211> 17
<212> DNA
35   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

40

<400> 19
catcgagcgt gccggag   17

45   <210> 20
     <211> 27

<212> DNA
<213> Artificial Sequence

<220>
5 <223> Description of Artificial Sequence: fully
          synthesized primer

<400> 20
ggatgccatc gaagctggat ggtgatg   27

10

<210> 21
<211> 38
<212> DNA
15 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
          synthesized primer

20

<400> 21
ggatccagat ctaagtagag agggcccacc aggtagtc   38

25 <210> 22
<211> 37
<212> DNA
<213> Artificial Sequence

30 <220>
<223> Description of Artificial Sequence: fully
          synthesized primer

<400> 22
35 ggatccagat ctcccctttg ctagttctct cctcgcc   37

<210> 23
<211> 17
40 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
45   synthesized primer

<400> 23
acgacctgga caagtac   17

5   <210> 24
        <211> 17
        <212> DNA
        <213> Artificial Sequence

10   <220>
        <223> Description of Artificial Sequence: fully
              synthesized primer

        <400> 24
15   tcgccttcac gttgtcg   17

        <210> 25
        <211> 27
20   <212> DNA
        <213> Artificial Sequence

        <220>
        <223> Description of Artificial Sequence: fully
25   synthesized primer

        <400> 25
        cagctcgccg tgtacttgtc caggtcg   27

30
        <210> 26
        <211> 39
        <212> DNA
        <213> Artificial Sequence

35
        <220>
        <223> Description of Artificial Sequence: fully
              synthesized primer

40   <400> 26
        ggatccagat ctaggttgcc atccagctgg atggcgatg   39

        <210> 27
45   <211> 27
        <212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 27
cacccggaga gcgttgtgtg cggaagc   27

<210> 28
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 28
ggatccagat ctccttcctg tggccgccgg ctctcct   37

<210> 29
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 29
gtggcatcat cgtcagc   17

<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 30

cctcgcacag cgtcgagcag   20

<210> 31
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 31
ctgccctcgc acagcgtcga gcagaag   27

<210> 32
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 32
ggatccagat cttcggcgat tgttgatgga tcggagaag   39

<210> 33
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 33
ccatggccaa gaagggt   17

<210> 34
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 34
cccttctcct tgatgtccac c   21

<210> 35
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 35
ccttcttggc catggcgccg aacgcc   26

<210> 36
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 36
ggatccagat ctcgaagtgg tacgccgcga taggctcat   39

<210> 37
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 37
ggatccagat ctcatgtccg tagatgtgca ccac   34

<210> 38
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 38
gccggcgaga gcatggcgat g   21

<210> 39
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 39
cgttgctgtg gtctgcttg   19

<210> 40
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 40
gccgacacca gggtgacctc caggacac   28

<210> 41
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

5   <400> 41
    ggatccagat ctcatgctct cgccggcgaa ggtgttttgc   40

    <210> 42
10 <211> 34
    <212> DNA
    <213> Artificial Sequence

    <220>
15 <223> Description of Artificial Sequence: fully
          synthesized primer

    <400> 42
    ggatccagat ctctcgccgg cgaaggtgtt ttgc   34
20

    <210> 43
    <211> 19
    <212> DNA
25 <213> Artificial Sequence

    <220>
    <223> Description of Artificial Sequence: fully
          synthesized primer
30
    <400> 43
    ctacgactag ctagattcc   19

35 <210> 44
    <211> 18
    <212> DNA
    <213> Artificial Sequence

40 <220>
    <223> Description of Artificial Sequence: fully
          synthesized primer

    <400> 44
45 gcggattctg ttcttgcc   18

<210> 45
<211> 18
<212> DNA
5   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
       synthesized primer
10
<400> 45
gcggattctg ttcttccc   18

15   <210> 46
<211> 27
<212> DNA
<213> Artificial Sequence

20   <220>
<223> Description of Artificial Sequence: fully
       synthesized primer

<400> 46
25   acgcggatcc tggtgggcgc catcgcg   27

<210> 47
<211> 39
30   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
35   synthesized primer

<400> 47
ggatccagat cttgggcgcc atcgcgcgtg gaatctagc   39

40
<210> 48
<211> 32
<212> DNA
<213> Artificial Sequence
45
<220>

<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 48
5   ggatccagat ctcgtttgcg gtgttcgcgt tg   32

<210> 49
<211> 15
10   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
15   synthesized primer

<400> 49
ccgctttagt tcagt   15

20
<210> 50
<211> 15
<212> DNA
<213> Artificial Sequence

25
<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

30   <400> 50
cccgcatttc atttc   15

<210> 51
35   <211> 27
<212> DNA
<213> Artificial Sequence

<220>
40   <223> Description of Artificial Sequence: fully
    synthesized primer

<400> 51
gtctgttgtc catgcgattc acgctac   27
45

<210> 52
<211> 43
<212> DNA
<213> Artificial Sequence

5

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

10   <400> 52
ggatccagat ctcatgcgat tcacgctaca gccaaatgat cga   43

<210> 53
15   <211> 32
<212> DNA
<213> Artificial Sequence

<220>
20   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 53
ggatccagat ctgcccggtc agacatgttt ac   32
25

<210> 54
<211> 33
<212> DNA
30   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

35
<400> 54
ggatccagat ctgctcggcg cgttggtcgg tcg   33

40   <210> 55
<211> 18
<212> DNA
<213> Artificial Sequence

45   <220>
<223> Description of Artificial Sequence: fully

synthesized primer

<400> 55
atgagggttc ttgtagag   18

5

<210> 56
<211> 18
<212> DNA
10   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

15

<400> 56
cccatcagtc cgctgttg   18

20   <210> 57
<211> 40
<212> DNA
<213> Artificial Sequence

25   <220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 57
30   ggatcctaga tctaaacaca gagactaaca gcttctctac   40

<210> 58
<211> 27
35   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
40   synthesized primer

<400> 58
tgccgtgtga tcatattcta gagacac   27

45
<210> 59

<211> 27
<212> DNA
<213> Artificial Sequence

5   <220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 59
10   aaacacagag actaacagct tctctac   27

<210> 60
<211> 18
15   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
20   synthesized primer

<400> 60
attctccagc gcaggtag   18

25

<210> 61
<211> 18
<212> DNA
<213> Artificial Sequence

30   <220>
<223> Description of Artificial Sequence: fully
      synthesized primer

35   <400> 61
tgccctggct cgtcgaag   18

<210> 62
40   <211> 27
<212> DNA
<213> Artificial Sequence

<220>
45   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 62
cctgccacga catctttgcc cggtcag   27

5

<210> 63
<211> 27
<212> DNA
<213> Artificial Sequence

10

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

15   <400> 63
tcgcacatca ggtgctcgtc cacgtac   27

<210> 64
20   <211> 38
<212> DNA
<213> Artificial Sequence

<220>
25   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 64
ggatcctaga tctctgcgct ggagaatgga tcggagag   38

30

<210> 65
<211> 19
<212> DNA
35   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

40
<400> 65
gaatcatcgg aataatggc   19

45   <210> 66
<211> 16

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 66
taggagcggg agcatc   16

<210> 67
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 67
catcggcgga tgccatggac ctaccct   27

<210> 68
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 68
gccaggagga gcacgacgag gaacacg   27

<210> 69
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 69
ggatcctaga tctgccagga ggagcacgac gaggaacacg   40

5   <210> 70
       <211> 19
       <212> DNA
       <213> Artificial Sequence

10   <220>
       <223> Description of Artificial Sequence: fully
            synthesized primer

       <400> 70
15   caaacgctgc tgcgctctc   19

       <210> 71
       <211> 16
20   <212> DNA
       <213> Artificial Sequence

       <220>
       <223> Description of Artificial Sequence: fully
25   synthesized primer

       <400> 71
       gagcgtggcg acgacg   16

30
       <210> 72
       <211> 27
       <212> DNA
       <213> Artificial Sequence
35
       <220>
       <223> Description of Artificial Sequence: fully
            synthesized primer

40   <400> 72
       gcgccatttt ctccaggttg ttctctc   27

       <210> 73
45   <211> 27
       <212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 73
caccgatcaa aacgacaggc tcctctg   27

<210> 74
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 74
ggatcctaga tctcaccgat caaaacgaca ggctcctctg   40

<210> 75
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 75
caaggaggtg ttccacagcg tggcc   25

<210> 76
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 76

tggcgttgcg cacgacggag tgcat   25

<210> 77
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 77
accgtgaagt tgtcgccggc cttcttg   27

<210> 78
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 78
ggatcctaga tctacgagga tcgccgatag gccacctagg   40

<210> 79
<211> 2213
<212> DNA
<213> Zea mays

<400> 79
cctgtccttc ggcatttctg tagctactct cgacgatgag gtcttcgtcg cctcatcggt 60
aggcaaagtg tcctattgca cctctaagga ggtaggacta atcaactccc tagtgacacc 120
tatgtaggcc atctgagcag aggcaatgat ctttcactaa gactgattca gccaaagtta 180
actcttgaag tgctcctaaa caaataactt tggagcaaag tgaattttgg caattgttag 240
gtgaaggcag taaatgtgat ctgccctcac ctcctcagcc acttttatac tgaaaatgca 300
catgacgcga cacgggtcat ggaaattgtt cccgcgcagc gtcccaagtc ccccctcgat 360
gatttaactt ctaggtcaac cgtttttact tcaaatgtat caccttcttc ttaaacaagc 420
tttaggaagt tgtttttcgg atctttggaa ttgggcctcc aagttataat ttttgcaatc 480
taagctcttt gcaaagaaaa caaactcata tcgcaatggg ctacttttgg ggaccttcta 540
tgttgaagat cacttgctta aactttttact ttgacacaag ctagtgtgtt tcaggaatat 600
ctctactgat gcacgaagcc aaccttcggt cgggaaggcg tgcagagaag cattgcacat 660

                              112

gaaaggtgaa agggtattaa ccaaagttga tagcttcgat gacagcaaag gagcttcaga 720
tacaagccaa aggaaaaggc gacgaaggcc taaatccgag cagccgaaga tggggaaaat 780
acgctactgc cctaacaaca tttgtaaaca gtgaggggta caattgtaat tatgtactaa 840
gtcggttcgt ctcccctata aatagatgaa cagtaacccg cataaattac attttgccag 900

5 gtgctacagc tttgtatagc tcaggctcca aaacacattc gtgctatctt gcactaagaa 960
gtcaatggta tgattgtaaa cttgtttct ataagagaaa tgaaattcta aggcacatga 1020
gatgagttct catatcttcg tcatgttttt atgtattcta gtcgattaca tccaaccttc 1080
gtccttgagt agttatccca aagacttaac acttcaagga tgaaggcttc tactttttaa 1140
cattgtgttg tcttgttttt tatttcattt agcaattaaa agcaagtgac taacacatgg 1200

10 ttaaacccaa gatccgaaaa gaggctaaaa ttgagcaaga atgaacaaaa gttggtaaga 1260
ggaacataaa ccaaccttc ttagcaacat tcttccaaaa aaagaagatc aaaacatgta 1320
cccttgtatt ttgtgaaaac tggatctcca aaattgccta caatggaagg tggctacgag 1380
aaacggttat aatcgaggag gtagagagaa ttttatgcta caaccttcac aggcggtttc 1440
cctaagaaac atccactcta aatgtctttg cacatacggt tcacttaaaa aaccgcaaat 1500

15 gcaaattgtt cattttcact ggaggttttt taagcgaacc gctagaggaa atctcatttg 1560
caccggcgat ccttaagaca tatcatgagc gaggttgcct tggaagccgg aagagttggt 1620
caatgaccta taaaaagcag aggacacagg agtgccctat tcaagcattg cctaaaaata 1680
gcaaaggcca aacgaccatt tcgtgtacat agcaaacggt gctcctctct ctcaagaaag 1740
gatatcttcg ggaacatcca tccatcccca atccccaaag gcgaggagag aactagcaaa 1800

20 ggggaaatgg ctgcttccac aaacaacact ctcagggtgc tgttcaccct aatggttgta 1860
tgcgccgcag tatgcacagc gaaaaggact gtagcaaagg caggagactt ggcgccagcc 1920
cctgctccgt taggagcagg aggcgccacc gcagccccag aaggtgcggc tagagccagc 1980
aggacgttcg acatatcgaa gttcggcgcg accagcgacg gcaagacgga ctcgacacag 2040
gttgcattgc attgcattgc attgcattgc atgttggcac ggtggtgtga ctgatgcact 2100

25 ggttcaatga tctatcaggc agtccaggac acgtggacgt cagcgtgcgg agcgatggga 2160
gacgcaacga tgctcatccc caagggcgac tacctggtgg gccctctcta ctt   2213

<210> 80

30 <211> 809
<212> DNA
<213> Zea mays

<400> 80

35 aaaaaaccca cgggttcacg ggtttgggta ctataggaac aaacccgtac caataaaccc 60
gtcgggtata gatttatgcc cattaacaaa cccatggata tgaaaattga tccaaacccg 120
taccctaata gggtaaaaac ccatcgggtt tcgggtttcg agtacccatt gtcatcttta 180
acaggaagtg agtcatgggc ctcttgtgcg tttgcgcttc tcgcttcatg gtccgtgact 240
ttccacgggt acacatatgg gccctaccat ggctctctta tcaactgggc ctcgaagcct 300

40 agctagttga tggcttgcat aattgcattg catggtctcc tctgctccgt ccgactgagc 360
gattcttccg gtaggggagc tgcagtgcag ctggtgcatg gcgatggatg gctgcgagtg 420
gtccaagaat ttctccccgg catgtcctct cctccagacc tccaccgatg cagcaggctc 480
ctggtagagc taactaaatc ggggacccct tctcaagttt tcatcactat atatgcagca 540
gatacctaga agagcacgac cgagctagga gaagcgcgaa cgcgtgcatg cgcagacgtt 600

45 gaggtcgagg gacacggtat ctctgagctt catcggagag cgacccgcca ccgccacgct 660
tggccgcaag ccgagaagag tgccgggccg ggagaccgga cgattattga tccgtagcag 720

113

attcgctaat ggcggatacg gcggacatgg agcggatctt caagcggttc gacaccaacg 780
gcgacggtaa gatctcgctg tcggagctg   809

5 <210> 81
   <211> 910
   <212> DNA
   <213> Zea mays

10 <400> 81
   ccgtgacttt ccacgggtac acatatgggc cctaccatgg ctctcttatc aactgggcct 60
   cgaagcctag ttagttgatg gcttgcataa ttgcattgca taattgcgct tctccctacc 120
   atgtgcctgt ttgtttcggc ttctgacagc ttctggccac caaaagctgc tgcggactgc 180
   caaacgctct gcttttcagt cagcttctat aaaattcgtt ggggcaaaaa ccatccaaaa 240
15 tcaatataaa cacataatcg gttgagtcgt tgtaatagtt ggaatccgtc actttctaga 300
   tattgaaccc tatgaacaac tttatcttcc tccacacgta atcgtaatga tactcagatt 360
   ctttccacag ccaaattccc ccacagccaa attttcagaa aagctggtca gaaaaaagct 420
   gaaccaaaca ggcccatggt ctcctctgct ccgtccggct gagcgattct tccggtggga 480
   gagctgcagc tgttgcatgg cgatggatgg cagcgaggtg gtccaagaat ttctccccgg 540
20 catgtcctct cctccagacc tccaccgatg cagcaggctc ctggtagagc taactaaatc 600
   ggggacccct tctcaagttt tcatcactat atatgcagca gatacctaga agagcacgac 660
   cgagctagga gaagcgcgaa cgccgtgcat gcgcagacgt tgaggtcgag ggacacggta 720
   tctctgagct tcatcggaga gcgacccgcc accgccacgc ttggccgcaa gccgagaaga 780
   gtgccgggcc gggagaccgg acgattattg atccgtagca gattcgctaa tggcggagac 840
25 ggcggacatg gagcggatct tcaagcggtt cgacaccaac ggcgacggta agatctcgct 900
   gtcggagctg   910

   <210> 82
30 <211> 1511
   <212> DNA
   <213> Zea mays

   <400> 82
35 atcgtgtaag gtgatttagt tcatttgttg tgagggaagt gtggtgcttg gtggtctgtt 60
   ccacgtggtt cctttgctcg agttttcatg ttctcatcat tcttgccttt gtttgagagg 120
   cgaggttatt gtcttctcca ctggagctgg gcagattttg ggttgaacca tcgcgatgta 180
   gctagtgaac ctgtggtctt ttgacattaa ttaaggtagt gttcggttct ggagccagtt 240
   gggatggagt ggctccgttc gagagatttt ggggagttgg atggctcggt atttgaatat 300
40 aatttccctt tttagaacca ctctatcttg taaaggattg gcactcaggg ttttcttagc 360
   tcaaccgtca gtggaaatcg atttctgctc atggttgtct taactgaacc gccaatgaaa 420
   aacgattttc actagcggtt atcgtttacc tgcctatgaa aataattatt tctactggtc 480
   tctaacgctg gaggttctga aaaacgccag tgcaaataag tttcgaacca tctctataaa 540
   acttctttct actagtgaca tggaaccaat ccgaacaaca ttaaattgag agtgaagtgg 600
45 cttgatccaa ctatagtcca gaaatcaaac actgcctaga aggctgctgg gcacgaggac 660
   ttgaactcta aaaagatgt ggtgctggtg ctcttcaaaa tatttgattg ttgttcagca 720

ttttgttttt gttttttgtag gcgtagttcg atttacccat ttatatgatt cgctgtgata 780
caatatcata tgtaattaaa atcaactgac cccccgtttg gatcattgga attgaattcc 840
attctaataa tagtaattta gatatatatc aattaagcta attcagtttt ttgcaaaata 900
tatttgtata ttattattag caagatgtta gaaatattta tgtgctatat ttttactata 960
gaggggtgag acgaagagtg tcttgtaagt tacagagtag aaacaaattc tactaatgca 1020
taaaatcatt tctcatcctg caccccatga atttgaaccc catgaatttg agataggctt 1080
atatctgaac tttgaaaagt ggtggaatgt caaatttcaa attaaataag ttaatttatt 1140
aggtgaattc caattccttt gaaacaaagg gatctaaacg tcccgtgaga aaatttgcat 1200
gtgcacaaaa gttcacaatt tgcatgctga cacacgcatc tctgggtccg tacgattggt 1260
aaaacttgat gaggttgcct ttgtctagca tccgcatcaa taggacctt gaaacggtaa 1320
gagttggtca tcgagaacct gaaaaaaaac tagaggacag gagttctta ttcaagcatg 1380
gcctcaaaat agcaaagtcc agacggtcat ttcgtgtaaa tagcagacgg tgctcctctg 1440
tctcttgcaa tcttccggaa catccatcga tctccccca gcggcgagga gagccggcgg 1500
ccacaggaag g   1511

<210> 83
<211> 459
<212> DNA
<213> Zea mays

<400> 83
cgtatctagc gactacatgc tacaacatgc tcgatgtcat atacacctat acatgtcact 60
atggcgtatc atactttgtc attaaaatcc acatctaaga catgatccat gtacaactac 120
gataagatag gagtactagt taaatctctg ttgggcattg gaccagatca tgctcgtgct 180
gggctttcgg gcctcgtgtt ctctcaccaa ttatagtggg tagctagtaa atgcatgcat 240
ctatatatgg acatgtatgc atgctattag agtattagtt agaagcgtac cactgcacga 300
agagagaggt acgatcggga gggaaactct catggccata cacctatcat ctcctttcg 360
tgcatccta ctgtgtatat ataaccaaca acgatcatgt tagttccaca agcaaattaa 420
acctatcatc atcttctccg atccatcaac aatcgccga   459

<210> 84
<211> 1503
<212> DNA
<213> Zea mays

<400> 84
atcctccaag gtatcagcag tgggtccgga cccccatggg aaagtgctgg acccctgttt 60
atatggaccg gacctccagg taaggtccag gacctccacg ggcgcgaact gaacccctg 120
gatgggtccc ggacccctct gtgtgggatc cgggccactc acaacaaggt cccgggattc 180
tgggacaaag aatacctgga ccttgttgaa gaccaagcga gggtccggag ccgacacgtg 240
ttcgggccat gcggtgtacg cttctgctct ccactcaggt ggagacccga tgctgccacg 300
tggcccacca ccgtgacgta agccagcggg cgaagcctga cgtaaggcct ctgggccaca 360
cggcctctgc atttattaca gataagccgc atcgcgtgtc cactccactg gcaggcgatg 420
tgccgcctca gaatttaatg agccttgtcc actccactgg caggcgatgt gccgcctcag 480

catttaatgt gccctgtcca ctctgctgac aggcaacgac cagccatcct gcaggcggcg 540
tgcctgtcca ttccgttggc aagcagtacg cctatgctgc ggcatacact gtgctcatca 600
tcactcgcgt gttaccaagg aggcagcatg ggataccaat actatatgca ctacagacat 660
tatagcgctc ggggtcacc ctggcgttac gggcattagt tgcttccttc catttgtccc 720

5   tcggcccaca tgtcggggct cagcacccct gtacgtgccc cccttgagct ataaaaggga 780
gggcacacga cgttacaagg aagacccaac ttaggctcac acactcactc aaactcacaa 840
gttcatacaa gctctcaagc tcaatacatc acacagtgga gtagggtatt acgctctggc 900
ggcccgaacc actctaaacc cttgtgtgtt cttgtgttct tcccgattcc atctagcagg 960
caaaacgctt gggcccctcc tcatcttagg atttagggcg ggtgcgttcc gccacccgac 1020

10   cggagaattc cctctccgac agtactcatg accacaaatt cagaccctgt ttgctagctc 1080
attcatcgta gcatagttcc attcactcat cgaagacaaa acatggttgc gattgtgagc 1140
accatgtggt cgtcgatgca ggcgcatgtg gcgatggtcg tggcattggc gttcctagtg 1200
agcggtgact ggtgcggtcc tcccaaggtt ccccctggca agaacatcac ggccacctac 1260
ggcagcgact ggctggacgc taaagcgaca tggtatggca agccaacggg tgctggcccc 1320

15   gacgacaacg gtggcggctg cgggtacaag gacgtgaaca agcccccctt caatagcatg 1380
ggcgcgtgca gcaacatccc tatcttcaag gatggtctgg gatgtgggtc ctgcttcgag 1440
atcaagtgtg ataagcctgc ggagtgctct ggcaagcccg cggtggtgta catcacggac 1500
atg   1503

<210> 85
<211> 658
<212> DNA
<213> Zea mays

25   <400> 85
aaattaatac aaataaaatc atataagtca ctccttctct aaatttatcg tatatacaaa 60
attatttga ttgttattga aaattaatat acaattatat gatgcaagtt tctttaatta 120
gcttattatc tatactatat aaaaatcagt atacacatgt tttatatatc atatggtact 180

30   tttttcatat tatagtattg atgaattttt cgcccctcta tgtcatactc ctggcttcac 240
cctagtctac tacgtcaatt ttttttcagta aatgcatcgc aaaatgattt tgcattttg 300
gtgtcctaaa tcttaatata tattcttaga caaatagagt taaacagatg ttaaacatag 360
atttgactta agataaaaat agattttaga aaatacagaa cagccccagt attctgcatt 420
gctaaaaaac actccgtgaa acaatgtgga ccgcaaaaag ttccttcaaa atcctgccat 480

35   ctgatgctat ttttgggggcc aaactccatc accaaccaaa cacaacctct tggctttatt 540
taacttgtgc cttgcggatg ttttcgttgt cgagggaata cgaacgtcgt acgagaacct 600
ttctccctcc tccacctttc tccttttctt gccacggcaa aacaccttcg ccggcgag   658

40   <210> 86
<211> 1173
<212> DNA
<213> Zea mays

45   <400> 86
gtcgtcaacc cggtgactgc catgggcccc atgattccgc ccaccatcaa ctgcagcatg 60

accgtgctcc tacgcctgct acaaggtgcg tggagtagtc gttgctttcc tgcttgctgc 120
tcgatatgca tgccgttcgc gttgccatgc gaatgagacg aagaagaaac taaaggagga 180
tgccggcctg ttcgtggtcg caggttgcac ggaggagtac agggacatct ggatgggggc 240
ggtgcatgtg cacgacgccg ccatggcgca tatcctggtg ttcgagagcc cggcggcgtc 300
cgggaggcac atctgcgccc agtccatctc ccactggagc gacttcgcgg ccaaggtcgc 360
cgagctgtac cctgagtaca aggtgcccaa gtaagcgacc cgaccatgtt ctgtgaaaat 420
gaaaacctgg atagatagag cattgcttag cttatagttg cgtacgttgc aggttcccca 480
aggatacccca gcctgggctg gtgcgacagg gagccgagga ggggtccaag aagctcgtcg 540
cgttggggct gcacttcagc cctctggaga agatcatcag ggacgctgtg gaggccctca 600
agagcagagg ctacatttcg tagctagccg accgacggca gctatagtgg agtagtatgc 660
ctgtcgaatt tcgattccca agtggcaaat tctgcaaaac gagtccgcca atatgaacaa 720
taaataaaga acgttgtgat aaaataaagc agattttctg ttgcatttgg cccttcaaag 780
catccgtggt ggtaagattt cctatgatct gtcctggtcg gtcgggcctg agcacctttt 840
ttctgtagac ggatgcttta tcacctaggg attgttttat tatattgcta taatgcaaat 900
tggttgatcc aaattaaagc aggatctaaa atggtcgaca ggctaagctt ataatgaaca 960
cagaaataaa tcaaggtgga atgtgtccgc aatcgacgct gcgatttcga atgctaaata 1020
aataaatcgg taacacggac ggacgtagaa gagaagccat tatgcgtggc aggcagcaca 1080
agagctattc aaagccgcgg caacggaggg ctgcaattca caaaccccaa aattaggtca 1140
ccccggccac tttcaacgcg aacaccgcaa acg   1173

<210> 87
<211> 1587
<212> DNA
<213> Zea mays

<400> 87
actcttccca tttgcgagga atctccacaa gttggagcct ctcaccctta caaagttatg 60
atcacaaaga aagcacaaga gtaaggatgg gagagcaaca cacgcaagac tcaaatccgt 120
agcacaatca cgcacacaag ccaagacttg agctcgaaac acagcacatg gagtttgcaa 180
ctcaaacaga gctcaaatca ctaacacagc gaatcaaatg cgtggagacg gagtctggga 240
gtcttagaat gtttcttgaa agcttggtgt tctgctccat gcgcctaggg gtccctttta 300
aacctccaag acagctagga gtcgttggag atcaacatgg aaggctgatc tttccttctg 360
ccgagtggcg caccggacag tccggtgcgc caccgggcag gtcctgtagc ttgtccggtg 420
tgcgatctcc ttccatatcg ggcgcatccg accgttgagc cggcggtctc gttggcgcat 480
cagacactgt acggtgtaca ccggacagtc tggtgtgccc aaccaaccgt tggcccgtcc 540
acgtgtcacc cgcagatttc gctgccgacc gttggccgtg agcgccgttg gctcatcgga 600
cagtcattag gaacgaagca taaacaaaag cgcgtgatgt ggacacacat tagggtattt 660
tgggctaact tgacacactt gagtatttat aagatgtgtc atgggcttga cgactctata 720
ggctagctag cacggcacat aattaggttt gtactttagc gtgccatgct agcctatatg 780
tgtataaggc cattctcaat tgaagtttta ttggagtttc attctcatta aatgttgtgc 840
cacataagca aacaagacga catgtcatac catttaatga agagagatat gagagagttt 900
aatgggggaat aaagctctat ttacactatt tcctagacaa atattgatat ggtatccttg 960
gaattcgtat gatgaaatcc tcaattgaag aatggcttaa ctggcaccgc tacgtagggg 1020
ctattcaaga accaacaatg tacagttgtt gcaacgtgaa tggttatttg cttcagatta 1080
aagccaattg tttagactga tgcagctgca attcatagag acaaaaacag tgtagaagcc 1140

gtataagcat taagcaaaca agcgaacatt gcttagctac aaccaatttg ctgggcttcc 1200
atgggcatcg cagaagtatt gtggctgcat attgctgaaa ttatagcgag ggcccaaggc 1260
ccatcacttc acttcgaggt cagcattgta cttttgttaa cgtctcgata aatttgttca 1320
cttaaaatag accagttcaa ttctggttct agtcaacatg cctggatcca cggggggagcg 1380

5 aggagacgaa tgtgtggccc gccgcagtga ggccaagccg agcccggtcg tccgtccaac 1440
caccccctcg tttatactat atatacacag acgcacgata cccatatcgt ggtgctagaa 1500
gcaactgaaa acagccgagc gatctcctct ccctctccct ctccgatcca ttctccagcg 1560
cagcgaagta aacatgtctg accgggc   1587

10

<210> 88
<211> 665
<212> DNA
<213> Zea mays

15

<400> 88
aaagaaaatt ggatgaaagt tactcgaccc cgtcaattta acagtgacat tgaatttgtc 60
gaggctgttg agatgaagac atgccagatt gagggtattt tactaataag gagattttag 120
gtgtgaatga caaacgcttc agccgaatac ttaaaagact ggctaagaag aacaaagcta 180

20 atttggtgga ggtttcatcc aacagtgatg aggaaagaac accaactctg gtagaagtag 240
agtatgttgc tgcatcaaag agttttttt ttgtggaaaa cttcagcgtg tagtttatt 300
ggtcagcaat gtttgtttgg cagtagcatg catgagtccg attctctgac catctccatt 360
taccggtgcc ctggttatta tcccccccatc acaagagtgg ccaacatgca gccctgaaa 420
cctggcgaag tccaaggggg agcgaggaga cgaacgtgtg gccacggtga ggtggggatc 480

25 cggtccttca ccccttcaac ttgggattcc ctctctattt agccatccgt ccggtgcacg 540
atgctacaag ctcctcgtca ccagtcagaa aacagtggga tcgagttgtt tcactgcacg 600
agcacatcct ccggcgacca ccggcctccc tctccgtcct ctagcgaccg accaacgcgc 660
cgagc   665

30

<210> 89
<211> 833
<212> DNA
<213> Zea mays

35

<400> 89
acggaaccta aatatggatg tcttacaaca gctaattaga tgcgaaaggt tccagcatgc 60
ccattcgtta ccctgtgaac atgggcagat ctacgggtat tatgttctgg cacaccctac 120
gtatccggta tatcttgccg attatgtttt aatactatga ggttgtttgt ataatcacat 180

40 ttcacaaatg agagctgaga atttaatccg tgcaaattag tttatttaat tgtttgggaa 240
tatgttttta agtaggtgaa gataacataa ttaagatatc gattatgtct cttagtaagg 300
tctcagctaa aaagtcgtat gaactattag catgactttt cattgattta tattgtaatt 360
tatgaatatt tttaacttac tttacaaatt taaggattat tatttatatt ttgaacttat 420
cctataattt aaaatttact atgtaatttc atgtaaaaat ggtttctaat ttgatcgagt 480

45 atatatatga aaattttaga tgacttatag aaaaattcta gatccgccat tggctgcaga 540
gtgtagagga tgtgcatgca cagatgcact tcattgttgt tatatataca acaagttttc 600

atgcaataca agcctataaa taaatgtcct gactaagctt tcgtccacag aatttaccac 660
ttcttccgct gagtactacc gattcaacag aacagataga ccactcgtta acactgtaca 720
cttctaccta tatattcgct tctctcctct tgcaaatcat attgtcaata gtaacagtga 780
gaagaacaca caaaatgagg gttcttgtag agaagctgtt agtctctgtg ttt   833

5

<210> 90
<211> 823
<212> DNA
10   <213> Zea mays

<400> 90
ctgcacggta ctccaagtat aagacacagc taaaacacaa cataatgcag tggtcatgtc 60
taaaacatgt gtcttaccat attcattgta tcaatcagaa cattcaataa attaaagtga 120
15   ccaatcagat agtctcctgt cccgaatata gagctaagac actgtgtctt cgtcaagata 180
catgtcttga gatttttttac attcacccccc ctagacacac tctaagacac aacttaagac 240
acccattgta catgccctaa ctggcaccgc tacgtagggg ctattcaaga accaaccatg 300
tacagttgtt gcaacgtgaa tggttatttg cttcagatta aagctaatta tttagactga 360
tgcagctgca attcatagag acaaaaacag tgtagaagcc gtataagcat taagcaaaca 420
agcgaacatt gcttagctac aaccaatttg ctgggcttcc atgggcatcg cagaagtatt 480
gtggctgcat attgctgaaa ttatagcgag ggcccaaggc ccatcacttc acttcgaggt 540
cagcattgta cttttgttaa cgtctcgata aatttgttca cttaaaatag accagttcaa 600
ttctggttct agtcaacatg cctggatcca cggggggagcg aggagacgaa tgtgtggccc 660
gccgcagtga ggccaagccg agcccggtcg tccgtccaac cacccccctcg tttatactat 720
atatacacag acgcacgata cccatatcgt ggtgctagaa gcaactgaaa acagccgagc 780
25   gatctcctct ccctctccct ctccgatcca ttctccagcg cag   823

<210> 91
30   <211> 1163
<212> DNA
<213> Zea mays

<400> 91
35   actacagccc gagggcgcct gtctacgggc ccctcggcgc agactatctg gttgtcccac 60
cggatagtcc ggtgcacacc agacaattac tgttcactgt ccggtgtgcc atcaggcgtt 120
ggttgactgc ctttttcttg gatttcttcg cagtttcttt tgagcttctt ttgttcttga 180
gtcttggact tctatgcttc tttttatatc ttcttttgag gtgttgcatc ctcattgcct 240
tagtccaatc ctcttcgcat cctgtgaact acaaacataa acactagcaa acacattagt 300
40   ccacaggttg cgttgttcat caaacaccaa aacctttga gccaaatggc acaggtccat 360
tttcattaca gccaccctcc tcagtcgttg gttgttagtt attttcgacg gctcacgtgt 420
atagccgcca aaatttggca aatttcggca ccacaatgtc caaccatcga aaattagaca 480
atagggaaaa tcacgggccg cccttttcatt ttccacggcg aattagggtc accaaaccaa 540
aacaatcgaa aaccaaacca cgagccttaa tttttgtggc cttgaccgcc aaaaattaca 600
45   tgttttcttc tagtggtagg gggagttata agcaacaact ctaacaattg tagaaaaata 660
acattgggtg accaagatga gtaagagagg aatttaggat gagattaata tgtgtttatt 720

gctatctaaa ctttatacat gaggtttcta ggctcgtcat atgttataga gtcaaaaagt 780
atgacatgtt tttttagtca caacaaagtg tggctttcca cacttttgtg gtttatcttg 840
tttaactaag attagccatg acaatttatg agcactcgca tgtttggcca cctatatata 900
gcgagacttg tgcatccaag acttcttccg tgcgagggta gtgcacgacc ataggacaag 960
aggagcttgc attcgcgcgt ctcaaggcaa caatctcccc taaaaatagc cacacaacat 1020
tcatgttgcc tatatataaa catcgtgcct cgcccgtccc atcatcacag tcgaaacaaa 1080
gccacaacac atacaggaaa gcaagcaaga atcatcggaa taatggctcg tgcatgcgtg 1140
ttcctcgtcg tgctcctcct ggc   1163

<210> 92
<211> 2126
<212> DNA
<213> Zea mays

<400> 92
cctccgaaat caccgaccac agagatacac ttgcacgggt gtgcgggcga tcagattttt 60
ggggagcgtc ttcgcgactg ctcgcgtgat cgtccacagc ttgctgttcg tcgccttccc 120
aagttgacgc gtgctgctgt tcttcttccc ggcgaccgtt cgagggactg cactgcgtac 180
atcttcctgc accgacttcg tacggctaca tcgaacaaac acacgagatg tctcgtgtga 240
atggagccac tggtgccttg agcatcggtc cctccgctgg gtacactctg ttcttcgtat 300
ttgtgcatgt ttcattgctg tttactgctt atgcgagtag ttatacacat atgcacatac 360
atgtcatcac atatatcgca ctgattatct ggattaaatt aaaactaaaa atgcctaact 420
ttctaacaat atttgcactt gttcttacta ttcctgtttg atttggtttt ttgattgagt 480
gtgatgagtt gtgaagtaat gtctataatt gcatctaaat atatatatat gcataaaaat 540
atagaaatac tcccataaaa acagatccat cttatcttga aagattctat attatcctaa 600
tagatccatc ttgtcctgat aagcatactt attccacctt agagtaacaa tcatgatcta 660
atccaaatta attagatcta atctaatcta atctaattca atataatcta atttgaccta 720
atttagtcaa aactagtcta atctaatctg aaactcttat cttattgatc tttcttgcct 780
atatctaaag gttagaacta attaacttat ctagtccaac ctaggagcaa aacaacaaac 840
atgattctac atattctcat gaagcttaag ccacctatta agccatatgc tctacctact 900
gagctatttg gtgtacctac aaacccattt taaccataaa tcatttaatt tgcaattagt 960
gaacattgta attgtcctag ttgcctggtt tgttgtatta tatatttgag taacgagtaa 1020
tgacttcata tttggattga gctagtaact taactaattc caacttggat atggatgtat 1080
atatggttgt atccgtgggg gtggcctttg atttggttat atttcacttg agagagtagt 1140
attgtaatgt tctgaagagt tgttcagtat tttctggaac aaagaagata aatacttccg 1200
taaggttgca caacttatca tttgaaaggg gttactatgt ttggttgtga tgcatatagc 1260
tcatgctgaa actaatcatc tttgttgatt agaacggcta ggaggttagc agttgtagaa 1320
gttgcagtaa ttacagaaaa aaaaaggatg gatggaagca atccaatatg tgcatgcaaa 1380
atttgggttt gaacaaggac ttatggtaag agaaacatgc gcttgaacag tatgtgtagg 1440
agactcaaag gagttctgga gagagaggtt tcttcttttt tttcttagtt ttgacttccg 1500
gtctataact aacattgtaa gagcaaaaat gagaaaaaaa catgactaaa gttaaaaata 1560
aggacaccag caaaaccaaa ggcaccacct taaaaaactg ttttcttttt ctgaacacag 1620
aatcaagggg atttatttgt tattaatact aacagaaaat gttagcagga gtgacagtct 1680
gttggagcag gattctgcga ggaagccgct tatccataga caggaatttt tttagtgata 1740
agtagggcac actcttaact ttgcatgagg agtttgggta ccaaatacag gtgaggggtg 1800

aggcttcgtc agtcgttgca caggtaaaga ttgatgattt gatgtaactt tgaaccgctc 1860
taactaacta aatcgtcctc gagtgtgcgg cgggtgcgag caacaaggcc gtccgctcct 1920
tgttcgtccc tgcatgtgtt ccgttcggtt ccatcaattc caccacgaaa taaggctgta 1980
taaatctttc ctgggcgttc cctctctctc ctgtgcatcg ccggacggaa ccaaacgcca 2040
aacgctgctg cgctctctcc ttctcgtcct gacccccccag agcgagaggg aggggcaccc 2100
agaggagcct gtcgttttga tcggtg 2126

<210> 93
<211> 2508
<212> DNA
<213> Zea mays

<400> 93
actgcttgtg aaaagtaaac tgaattctgg ttgtgaacta cttgtttaag taaatgcgtg 60
tttctgtttt ttgttgtcag tgcatttctg ttttcactga tgaaaccacc atttctgctt 120
tcaatgaatc tattgaactg aactgcaaaa aaagaaattg ttctattttg tttgagtgca 180
caaacggaac tcaacggaac tagatctgaa tatgtttgag tgcacaaaca gaaattgttc 240
tgttctggtt tcagtgaact ccacaaatag aactgaatct attatgtttg agtgtagaaa 300
cagataccga aatgctacat ctagcactta atctggcaga atcagaaaat tggggcaaat 360
acaagttgtt taagagcaca aacagaaact gaatctgttt gattgcagaa accaataaaa 420
acagaaatat atgttgaaaa taattcataa gtaggcagtg gtggtgctat ggtgcatacc 480
aggttcttat tcaaatgatt tgctaaagtc aaatatatgc ttctggtctg attgatttgt 540
gaaactgaaa tggatatttt atttcggcac tatgaaataa actcactgtg atcctgaaac 600
atatcagttg tgtttgtttt tgtaaatctt ttataccact aggggagaaa attagcttag 660
ttcaatcgca tctcatatgt ctaattacca ggggagaaaa ttagcttagt tcattttgtt 720
gctgccatat gggtgaaaaa ataatgagac atctaaatca gtaaattgga aatatagcat 780
cttaaacctg caggtagttt cttaaacctg attctagcta caacttagta caactaccgg 840
tagttttta aacctgattc tagctacatg ttttatattg tggcacaaga acttttaaga 900
acatatgctg atgcccactg tatttagtta ctacttcaag accaactgta ttttagttac 960
aaatgtgttt tcaagattat agaaatttgt agctgaaatt atccacacca tatttgtgaa 1020
ctgacatcat ttctaagaat attactgatt agaatctttc acttttataa tgctttgcag 1080
gagtggcccc tctggagttg aatatgcagt tataaccaaa ttttaccccct tttatcctag 1140
aagagttgcc aagacacggt ataagaccat gataatagac taagagagga tttggctcta 1200
attactatat gttttattta tgcagtccca tgagaacttt gagtatttgc agattgcttt 1260
attaatttat taaagttaaa gattgtatgt gttgagtatg tatccactct tgttggaagt 1320
gtcttgcaat tccaatccaa ggatgtataa aatactgcat gggctaagta tgtgtttttt 1380
catgtatttg gagtatatat acttttttgtt gcttgagaac atgtatgtac actagaagct 1440
tgtcaattgt gtgaacttga gttgatccct gtctaacctg agtatatata tatatatata 1500
ttttgttgct tgagaacaag tatgtacaat agaggcttga caattgtgtg aacttgagtt 1560
gaacatgaat tttgataatc acaactcacc atcccttttca atatgcttag aatatagctt 1620
tttataattt ttcaccctac aatacaaaat tgttctatga aggccatggt acatcatcat 1680
atcctgtatt atcaacctag gatttgtcta tttcgattaa taatggcatt gagtcaaatt 1740
ttggttgttt caaatgatag acttcgatat ttgttatgat ttatgagttg attcttgata 1800
gcattactaa aaaatgacct atgtatatac aagtgtcttc cgttgcaacg cacggacata 1860
tacctagtca atcactaaga ccctaatttt gaagttggga cttagacgtg ttccacgttt 1920

gtaaaggcaa gtatataggt gtatgtatat aagagccggt gtatacaaca attttttata 1980
agaaaacttg aacaagtagc caggtgttga aatcttcata tatgtgccga cgccattcaa 2040
catcatattt ggcttctggc gaggatcgta gtatcaagca acataaaagc aatgacaaac 2100
agcgaagcac aaagatctcc caggctcgtc ataaactaat cacaatgttg tttgtcctcc 2160
acaattagca caacccattt tagaaaaaga tgccacgatc gatcgagacg ttggccagct 2220
atcaaacaga taagaactac ccaaatattt cctaaatcca gaacggaaga cccattgact 2280
aggtccttac ctctcaaata gacagactat tcttctccac atcaaaatat agggactccc 2340
gatgcaacaa acacgggcca ccacacaaca atggtgaaat gaccatgcat gcatccacgt 2400
ccgtacgcag ccatttcgtc tataaatttg cttcccatcc gattcaacta caagcttgcg 2460
ggcaaaaatg gcaaaggctc tcctaggtgg cctatcggcg atcctcgt 2508

<210> 94
<211> 1797
<212> DNA
<213> Zea mays

<400> 94
aagctttagg aagttgtttt tcggatcttt ggaattgggc ctccaagtta taatttttgc 60
aatctaagct ctttgcaaag aaaacaaact catatcgcaa tgggctactt ttggggacct 120
tctatgttga agatcacttg cttaaacttt tactttgaca caagctagtg tgtttcagga 180
atatctctac tgatgcacga agccaacctt cggtcgggaa ggcgtgcaga gaagcattgc 240
acatgaaagg tgaaagggta ttaaccaaag ttgatagctt cgatgacagc aaaggagctt 300
cagatacaag ccaaaggaaa aggcgacgaa ggcctaaatc cgagcagccg aagatgggga 360
aaatacgcta ctgccctaac aacatttgta aacagtgagg ggtacaattg taattatgta 420
ctaagtcggt tcgtctcccc tataaataga tgaacagtaa cccgcataaa ttcattttg 480
ccaggtgcta cagctttgta tagctcaggc tccaaacac attcgtgcta tcttgcacta 540
agaagtcaat ggtatgattg taaacttgtt ttctataaga gaaatgaaat tctaaggcac 600
atgagatgag ttctcatatc ttcgtcatgt ttttatgtat tctagtcgat tacatccaac 660
cttcgtcctt gagtagttat cccaaagact taacacttca aggatgaagg cttctacttt 720
ttaacattgt gttgtcttgt tttttatttc atttagcaat taaaagcaag tgactaacac 780
atggttaaac ccaagatccg aaaagaggct aaaattgagc aagaatgaac aaaagttggt 840
aagaggaaca taaaccaacc tttcttagca acattcttcc aaaaaaagaa gatcaaaaca 900
tgtacccttg tattttgtga aaactggatc tccaaaattg cctacaatgg aaggtggcta 960
cgagaaacgg ttataatcga ggaggtagag agaattttat gctacaacct tcacaggcgg 1020
tttccctaag aaacatccac tctaaatgtc tttgcacata cggttcactt aaaaaaccgc 1080
aaatgcaaat tgttcatttt cactggaggt tttttaagcg aaccgctaga ggaaatctca 1140
tttgcaccgg cgatccttaa gacatatcat gagcgaggtt gccttggaag ccggaagagt 1200
tggtcaatga cctataaaaa gcagaggaca caggagtgcc ctattcaagc attgcctaaa 1260
aatagcaaag gccaaacgac catttcgtgt acatagcaaa cggtgctcct ctctctcaag 1320
aaaggatatc ttcgggaaca tccatccatc cccaatcccc aaaggcgagg agagaactag 1380
caaaggggaa atggctgctt ccacaaacaa cactctcagg gtgctgttca ccctaatggt 1440
tgtatgcgcc gcagtatgca cagcgaaaag gactgtagca aaggcaggag acttggcgcc 1500
agcccctgct ccgttaggag caggaggcgc caccgcagcc ccagaaggtg cggctagagc 1560
cagcaggacg ttcgacatat cgaagttcgg cgcgaccagc gacggcaaga cggactcgac 1620
acaggttgca ttgcattgca ttgcattgca ttgcatgttg gcacggtggt gtgactgatg 1680

cactggttca atgatctatc aggcagtcca ggacacgtgg acgtcagcgt gcggagcgat 1740
gggagacgca acgatgctca tccccaaggg cgactacctg gtgggccctc tctactt   1797

5   <210> 95
     <211> 828
     <212> DNA
     <213> Zea mays

10   <400> 95
     ccgtgacttt ccacgggtac acatatgggc cctaccatgg ctctcttatc aactgggcct 60
     cgaagcctag ttagttgatg gcttgcataa ttgcattgca taattgcgct tctccctacc 120
     atgtgcctgt ttgtttcggc ttctgacagc ttctggccac caaaagctgc tgcggactgc 180
     caaacgctct gcttttcagt cagcttctat aaaattcgtt ggggcaaaaa ccatccaaaa 240
15   tcaatataaa cacataatcg gttgagtcgt tgtaatagtt ggaatccgtc actttctaga 300
     tattgaaccc tatgaacaac tttatcttcc tccacacgta atcgtaatga tactcagatt 360
     ctttccacag ccaaattccc ccacagccaa attttcagaa aagctggtca gaaaaaagct 420
     gaaccaaaca ggcccatggt ctcctctgct ccgtccggct gagcgattct tccggtggga 480
     gagctgcagc tgttgcatgg cgatggatgg cagcgaggtg gtccaagaat ttctccccgg 540
20   catgtcctct cctccagacc tccaccgatg cagcaggctc ctggtagagc taactaaatc 600
     ggggacccct tctcaagttt tcatcactat atatgcagca gatacctaga agagcacgac 660
     cgagctagga gaagcgcgaa cgccgtgcat gcgcagacgt tgaggtcgag ggacacggta 720
     tctctgagct tcatcggaga gcgacccgcc accgccacgc ttggccgcaa gccgagaaga 780
     gtgccgggcc gggagaccgg acgattattg atccgtagca gattcgct   828

25   <210> 96
     <211> 847
     <212> DNA
30   <213> Zea mays

     <400> 96
     ccgtgacttt ccacgggtac acatatgggc cctaccatgg ctctcttatc aactgggcct 60
     cgaagcctag ttagttgatg gcttgcataa ttgcattgca taattgcgct tctccctacc 120
35   atgtgcctgt ttgtttcggc ttctgacagc ttctggccac caaaagctgc tgcggactgc 180
     caaacgctct gcttttcagt cagcttctat aaaattcgtt ggggcaaaaa ccatccaaaa 240
     tcaatataaa cacataatcg gttgagtcgt tgtaatagtt ggaatccgtc actttctaga 300
     tattgaaccc tatgaacaac tttatcttcc tccacacgta atcgtaatga tactcagatt 360
     ctttccacag ccaaattccc ccacagccaa attttcagaa aagctggtca gaaaaaagct 420
40   gaaccaaaca ggcccatggt ctcctctgct ccgtccggct gagcgattct tccggtggga 480
     gagctgcagc tgttgcatgg cgatggatgg cagcgaggtg gtccaagaat ttctccccgg 540
     catgtcctct cctccagacc tccaccgatg cagcaggctc ctggtagagc taactaaatc 600
     ggggacccct tctcaagttt tcatcactat atatgcagca gatacctaga agagcacgac 660
     cgagctagga gaagcgcgaa cgccgtgcat gcgcagacgt tgaggtcgag ggacacggta 720
45   tctctgagct tcatcggaga gcgacccgcc accgccacgc ttggccgcaa gccgagaaga 780
     gtgccgggcc gggagaccgg acgattattg atccgtagca gattcgctaa tggcggagac 840

ggcggac 847

<210> 97
<211> 727
<212> DNA
<213> Zea mays

<400> 97
aaaaaaccca cgggttcacg ggtttgggta ctataggaac aaacccgtac caataaaccc 60
gtcgggtata gatttatgcc cattaacaaa cccatggata tgaaaattga tccaaacccg 120
taccctaata gggtaaaaac ccatcgggtt tcgggtttcg agtacccatt gtcatcttta 180
acaggaagtg agtcatgggc ctcttgtgcg tttgcgcttc tcgcttcatg gtccgtgact 240
ttccacgggt acacatatgg gccctaccat ggctctctta tcaactgggc ctcgaagcct 300
agctagttga tggcttgcat aattgcattg catggtctcc tctgctccgt ccgactgagc 360
gattcttccg gtaggggagc tgcagtgcag ctggtgcatg gcgatggatg gctgcgagtg 420
gtccaagaat ttctccccgg catgtcctct cctccagacc tccaccgatg cagcaggctc 480
ctggtagagc taactaaatc ggggaccccct tctcaagttt tcatcactat atatgcagca 540
gatacctaga agagcacgac cgagctagga gaagcgcgaa cgcgtgcatg cgcagacgtt 600
gaggtcgagg gacacggtat ctctgagctt catcggagag cgacccgcca ccgccacgct 660
tggccgcaag ccgagaagag tgccgggccg ggagaccgga cgattattga tccgtagcag 720
attcgct 727

<210> 98
<211> 746
<212> DNA
<213> Zea mays

<400> 98
aaaaaaccca cgggttcacg ggtttgggta ctataggaac aaacccgtac caataaaccc 60
gtcgggtata gatttatgcc cattaacaaa cccatggata tgaaaattga tccaaacccg 120
taccctaata gggtaaaaac ccatcgggtt tcgggtttcg agtacccatt gtcatcttta 180
acaggaagtg agtcatgggc ctcttgtgcg tttgcgcttc tcgcttcatg gtccgtgact 240
ttccacgggt acacatatgg gccctaccat ggctctctta tcaactgggc ctcgaagcct 300
agctagttga tggcttgcat aattgcattg catggtctcc tctgctccgt ccgactgagc 360
gattcttccg gtaggggagc tgcagtgcag ctggtgcatg gcgatggatg gctgcgagtg 420
gtccaagaat ttctccccgg catgtcctct cctccagacc tccaccgatg cagcaggctc 480
ctggtagagc taactaaatc ggggaccccct tctcaagttt tcatcactat atatgcagca 540
gatacctaga agagcacgac cgagctagga gaagcgcgaa cgcgtgcatg cgcagacgtt 600
gaggtcgagg gacacggtat ctctgagctt catcggagag cgacccgcca ccgccacgct 660
tggccgcaag ccgagaagag tgccgggccg ggagaccgga cgattattga tccgtagcag 720
attcgctaat ggcggatacg gcggac 746